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Matragi 6-3

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Patent Application

Applicant(s): Matragi et al.
Case: 6-3
Serial No.: 09/488,181
Filing Date: January 20, 2000
Group: 2666
Title: Method and Apparatus For Message-Based Overload Control in a Distributed Call-Processor Communication System

I hereby certify that this paper is being deposited on this date with the U.S. Postal Service as first class mail addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450

Signature: Linda Hackett Date: March 22, 2004

TRANSMITTAL OF APPEAL BRIEF

Mail Stop Appeal Brief Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Submitted herewith are the following documents relating to the above-identified patent application:

(1) Appeal Brief (original and two copies); and

(2) Copy of Notice of Appeal, filed on January 23, 2004, with copy of stamped return postcard indicating receipt of Notice by PTO on January 23, 2004.

There is an additional fee of $330 due in conjunction with this submission under 37 CFR §1.17(c). Please charge **Deposit Account No. 50-0762** the amount of $330, to cover this fee. In the event of non-payment or improper payment of a required fee, the Commissioner is authorized to charge or to credit **Deposit Account No. 50-0762** as required to correct the error. A duplicate copy of this letter and two copies of the Appeal Brief are enclosed.

Respectfully,

Kevin M. Mason

Date: March 22, 2004

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U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

NOTICE OF APPEAL FROM THE EXAMINER TO THE BOARD OF PATENT APPEALS AND INTEFERENCES

Docket Number (Optional): Matragi 6-3

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to "Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450"
on January 23, 2004
Signature: Linda Shackleton
Typed or printed name: Linda M. Shackleton

In re Application of: Matragi et al.

Application Number	Filed
09/488,181	January 20, 2000

For: Method and Apparatus for Message-Based Overload Control in a Distributed Call-Processor Communication System

Art Unit	Examiner
2666	Ronald B. Abelson

Applicant hereby **appeals** to the Board of Patent Appeals and Interferences from the last decision of the examiner.

The fee for this Notice of Appeal is (37 CFR 1.17(b)) $ 330.00

- ☐ Applicant claims small entity status. See 37 CFR 1.27. Therefore, the fee shown above is reduced by half, and the resulting fee is: $ _____
- ☐ A check in the amount of the fee is enclosed.
- ☐ Payment by credit card. Form PTO-2038 is attached.
- ☐ The Director has already been authorized to charge fees in this application to a Deposit Account. I have enclosed a duplicate copy of this sheet.
- ☒ The Director is hereby authorized to charge any fees which may be required, or credit any overpayment to Deposit Account No. 50-0762 . I have enclosed a duplicate copy of this sheet.
- ☐ A petition for an extension of time under 37 CFR 1.136(a) (PTO/SB/22) is enclosed.

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

I am the

- ☐ applicant/inventor.
- ☐ assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)
- ☒ attorney or agent of record. Registration number 36,597.
- ☐ attorney or agent acting under 37 CFR 1.34(a). Registration number if acting under 37 CFR 1.34(a). _____

Signature: Kevin M. Mason
Typed or printed name: Kevin M. Mason
Telephone number: 203-255-6560
Date: January 23, 2004

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.

☐ *Total of _____ forms are submitted.

Receipt in the USPTO is hereby acknowledged of:

Transmittal Letter – (Original & 1 copy)
Notice of Appeal - (Original & 1 copy)
Petition for Extension of Time – 1 month

Case Name: Matragi 6-3
Serial No. 09/488,181

1200-392

January 23, 2004 KMM

#11 3/29/04

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Patent Application

Applicant(s):	Matragi et al.
Case:	6-3
Serial No.:	09/488,181
Filing Date:	January 20, 2000
Group:	2666
Examiner:	Ronald B. Abelson

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Signature: Linda Sheckler Date: March 22, 2004

Title: Method and Apparatus for Message-based Overload Control in a Distributed Call-Processor Communication System

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APPEAL BRIEF

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Applicants hereby appeal the final rejection dated September 24, 2003, of claims 1 through 24 of the above-identified patent application.

REAL PARTY IN INTEREST

The present application is assigned to Lucent Technologies Inc., as evidenced by an assignment recorded on January 20, 2000 in the United States Patent and Trademark Office at Reel 010562, Frame 0202. The assignee, Lucent Technologies Inc., is the real party in interest.

RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences.

STATUS OF CLAIMS

Claims 1 through 24 are pending in the above-identified patent application. Claims 1-4, 6-9, 12-16, 18-21, and 24 remain rejected under 35 U.S.C. § 102(e) as being anticipated by McAllister et al. (United States Patent Number 6,215,765) and claims 5, 10, 11, 17, 22 and 23 remain rejected under 35 U.S.C. §103(a) as being unpatentable over McAllister et al., and further in view of Ash et al. (United States Patent Number 4,345,116).

STATUS OF AMENDMENTS

There have been no amendments filed subsequent to the final rejection.

SUMMARY OF INVENTION

The present invention is directed to a method and apparatus for alleviating congestion and overload in a distributed call-processing system interconnected through a packet based network, such as an IP or an ATM network. The illustrative IP network includes a plurality of end terminals (ETs) and distributed call processors (CPs) (page 4, line 24, to page 5, line 6). When an end terminal (ET) wants to place a call, the end terminal (ET) send a call set up message to a call processor (CP). According to an aspect of the invention, the call processor will determine whether to process the request or to forward the request to another call processor (page 5, lines 7-17). Generally, the call processor will declare an overload condition if sufficient resources (such as processing or memory resources) are not available to process a given call. If a call processor determines that it is too congested to process a call, the call processor enters an overload condition, selects an alternate call processor and forwards the request to the alternate call processor (page 5, line 18, to page 6, line 10).

ISSUES PRESENTED FOR REVIEW

i. Whether claims 1-4, 6-9, 12-16, 18-21, and 24 are properly rejected under 35 U.S.C. § 102(e) as being anticipated by McAllister et al.; and

ii. whether claims 5, 10, 11, 17, 22 and 23 are properly rejected under 35 U.S.C. §103(a) as being unpatentable over McAllister et al., and further in view of Ash et al.

GROUPING OF CLAIMS

The rejected claims do not stand and fall together. More particularly, for the reasons given below, Applicant believes that each of the dependent claims 2/14 and 12/24 provide independent bases for patentability apart from the rejected independent claims.

ARGUMENT

Independent Claims 1, 8, 13 and 20

Independent claims 1, 8, 13, and 20 were rejected under 35 U.S.C. § 102(e) as being anticipated by McAllister et al.

Regarding claims 1 and 8, the Examiner asserts that McAllister teaches that a "call processor is congested."

Applicants note that McAllister is directed to rerouting a call due to congestion or physical failure. See, Abstract. McAllister defines congestion in regard to network links, not call processors. McAllister teaches that "congestion may occur on a network link if many incoming streams of traffic all terminate on the same outbound link, or the outbound link may (be) busy or down due to failure." Col. 1, lines 10-12. Independent claims 1 and 13 require "whereby said forwarded call set up request indicates to said alternate call processor that said *congested call processor* is congested" and independent claims 8 and 20 require "setting a flag associated with said *congested call processor.*"

In the Response to Arguments section of the present Office Action, the Examiner asserts that the Applicants maintain "that the call processor is part of the network link." To the contrary, Applicants maintain that the call processor is not part of the network link. Thus, McAllister is not addressing the congestion of call processors.

The Examiner further states that, "secondly, the connection between the 'many incoming streams of traffic all terminate on the same outbound link' is the call processor." As noted above, McAllister clearly teaches that "congestion may occur on a network link if many incoming streams of traffic all terminate on the same outbound link." Applicants maintain that McAllister is addressing the congestion on a network link and not a call processor. In particular, if the bandwidth of "many incoming streams of traffic" exceeds the bandwidth of the "same outbound link," then the outbound link will be congested. The

call processor, however, will not be congested if it has enough processing power to handle the bandwidth of the incoming streams of traffic. Thus, network link congestion is not the same as call processor congestion.

In addition, since McAllister does not address the congestion of call processors, McAllister does not disclose or suggest "whereby said forwarded call set up request indicates to said alternate call processor that said congested call processor is congested" and does not disclose or suggest "setting a flag associated with said congested call processor."

Thus, McAllister does not disclose or suggest "whereby said forwarded call set up request indicates to said alternate call processor that said congested call processor is congested," as required by independent claims 1 and 13, and does not disclose or suggest "setting a flag associated with said congested call processor," as required by independent claims 8 and 20.

Additional Cited References

Ash et al. was also cited by the Examiner in rejecting claims 5, 10, 11, 17, 22, and 23 for its disclosure that Ash teaches that "crankback is used in a time sensitive environment where alternate routing is responsive to variations in traffic demand."

Applicants note that Ash is directed to an "alternate routing method which allows route choices without regard to network hierarchy. A plurality of routing sequences is generated, each route sequence including a plurality of route choices and being time sensitive to traffic demands, subject to a grade of service constraint and used for some predetermined time interval during which the sequence tends to mitigate network cost." See, Abstract. Ash does not address the issue of handling congested call processors.

Thus, Ash does not disclose or suggest "whereby said forwarded call set up request indicates to said alternate call processor that said congested call processor is congested," as required by independent claims 1 and 13, and does not disclose or suggest "setting a flag associated with said congested call processor," as required by independent claims 8 and 20.

Conclusion

Thus, McAllister et al. and Ash et al., alone or in combination, do not disclose or suggest "whereby said forwarded call set up request indicates to said alternate call

processor that said congested call processor is congested," as required by independent claims 1 and 13, and does not disclose or suggest "setting a flag associated with said congested call processor," as required by independent claims 8 and 20.

The rejections of the independent claims under section §102 in view of McAllister et al. and Ash et al., alone or in any combination, are therefore believed to be improper and should be withdrawn.

Dependent Claims

Claims 2, 12, 14, and 24 specify a number of limitations providing additional bases for patentability. Specifically, the Examiner rejected claims 2, 12, 14, and 24 under 35 U.S.C. § 102(e) as being anticipated by McAllister et al. Claims 2 and 14 require "wherein a call processor that previously received a forwarded call set up request within a predefined interval is not selected as the alternate call processor during said identifying step." Claims 12 and 24 require the steps of receiving a call set up request from an end terminal, determining if sufficient resources exist to process said call set up request and identifying an alternate call processor to process said call set up request using said flag associated with each potential alternate call processor.

Regarding claims 2 and 14, the Examiner asserts that McAllister discloses "the call processor that previously received a forwarded call setup request within a predefined interval is not selected as the alternate call processor during the identifying step (col. 3, lines 34-37)." Regarding claims 12 and 24, the Examiner asserts that the system disclosed by McAllister identifies an alternate call processor to process the call set up request (col. 3, lines 25-27) using the flag associated with each potential call processor (record of the Route and Route List; col. 3, lines 32-37).

The text cited by the Examiner addresses "crankback" as related to the selection of routes through a network. These citations do not address the selection of a call processor as defined in the present patent application and do not disclose or suggest, for instance, predefined time intervals associated with a forwarded call setup request nor flags associated with each potential call processor. Applicants have also reviewed the entire McAlister patent and could find no suggestion or disclosure of ***not selecting as the alternate call processor a call processor that previously received a forwarded call set up request within a predefined interval*** nor ***identifying an alternate call processor to process said call set up request*** using said flag associated with each potential alternate call processor.

Thus, McAllister does not disclose or suggest wherein a call processor that previously received a forwarded call set up request within a predefined interval is not selected as the alternate call processor during said identifying step, as required by dependent claims 2 and 14, and does not disclose or suggest the steps of receiving a call set up request from an end terminal, determining if sufficient resources exist to process said call set up request and identifying an alternate call processor to process said call set up request using said flag associated with each potential alternate call processor, as required by dependent claims 12 and 24.

The remaining rejected dependent claims are believed allowable for at least the reasons identified above with respect to the independent claims.

The attention of the Examiner and the Appeal Board to this matter is appreciated.

Respectfully,

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Date: March 22, 2004

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APPENDIX

1. An overload control method for use in a network employing distributed call-processing, said method comprising the steps of:

receiving a call set up request from an end terminal;

determining if sufficient resources exist to process said call set up request;

identifying an alternate call processor to process said call set up request using a list of call processors if sufficient resources do not exist; and

forwarding said call set up request to said identified alternate call processor with an identifier of said congested call processor, whereby said forwarded call set up request indicates to said alternate call processor that said congested call processor is congested.

2. The method of claim 1, wherein a call processor that previously received a forwarded call set up request within a predefined interval is not selected as the alternate call processor during said identifying step.

3. The method of claim 1, wherein said identifying step further comprises the step of evaluating a congestion indicator flag associated with each potential alternate call processor, wherein said congestion indicator flag is set if a congestion message is received from said corresponding alternate call processor.

4. The method of claim 1, wherein said forwarding step further comprises the step of setting a flag indicating that said selected alternate call processor received said forwarded call set up request.

5. The method of claim 4, wherein said flag indicating that said selected alternate call processor received said forwarded call set up request automatically expires after a predefined interval.

6. The method of claim 1, wherein said identifying step further comprises the

step of evaluating a total congestion indicator flag indicating whether all potential alternate call processors are congested.

7. The method of claim 1, wherein said list of call processors is an ordered list.

8. An overload control method for use in a network employing distributed call-processing, said method comprising the steps of:

receiving a forwarded call set up request from a congested call processor, said forwarded call set up request including an identifier of said congested call processor; and

setting a flag associated with said congested call processor indicating that said congested call processor is congested.

9. The method of claim 8, further comprising the step of determining if sufficient resources exist to process said forwarded call set up request.

10. The method of claim 8, further comprising the step of setting a timer associated with said flag.

11. The method of claim 10, further comprising the step of automatically expiring said flag in accordance with said timer.

12. The method of claim 8, further comprising the steps of receiving a call set up request from an end terminal, determining if sufficient resources exist to process said call set up request and identifying an alternate call processor to process said call set up request using said flag associated with each potential alternate call processor.

13. An overload control manager for use in a network employing distributed call-processing, comprising:

a memory for storing computer readable code; and

a processor operatively coupled to said memory, said processor configured to:

receive a call set up request from an end terminal;

determine if sufficient resources exist to process said call set up request;

identify an alternate call processor to process said call set up request using a list of call processors if sufficient resources do not exist; and

forward said call set up request to said identified alternate call processor with an identifier of said congested call processor, whereby said forwarded call set up request indicates to said alternate call processor that said congested call processor is congested.

14. The overload control manager of claim 13, wherein a call processor that previously received a forwarded call set up request within a predefined interval is not selected as the alternate call processor during said identifying step.

15. The overload control manager of claim 13, wherein said processor is further configured to evaluate a congestion indicator flag associated with each potential alternate call processor, wherein said congestion indicator flag is set if a congestion message is received from said corresponding alternate call processor.

16. The overload control manager of claim 13, wherein said processor is further configured to set a flag indicating that said selected alternate call processor received said forwarded call set up request.

17. The overload control manager of claim 16, wherein said flag indicating that said selected alternate call processor received said forwarded call set up request automatically expires after a predefined interval.

18. The overload control manager of claim 13, wherein said processor is further configured to evaluate a total congestion indicator flag indicating whether all potential alternate call processors are congested.

19. The overload control manager of claim 13, wherein said list of call processors is an ordered list.

20. An overload control manager for use in a network employing distributed call-processing, comprising:

a memory for storing computer readable code; and

a processor operatively coupled to said memory, said processor configured to:

receiving a forwarded call set up request from a congested call processor, said forwarded call set up request including an identifier of said congested call processor; and

setting a flag associated with said congested call processor indicating that said congested call processor is congested.

21. The overload control manager of claim 20, wherein said processor is further configured to determine if sufficient resources exist to process said forwarded call set up request.

22. The overload control manager of claim 20, wherein said processor is further configured to set a timer associated with said flag.

23. The overload control manager of claim 20, wherein said processor is further configured to automatically expire said flag in accordance with said timer.

24. The overload control manager of claim 20, wherein said processor is further configured to (i) receive a call set up request from an end terminal, (ii) determine if sufficient resources exist to process said call set up request and (iii) identify an alternate call processor to process said call set up request using said flag associated with each potential alternate call processor.